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Installation Instructions

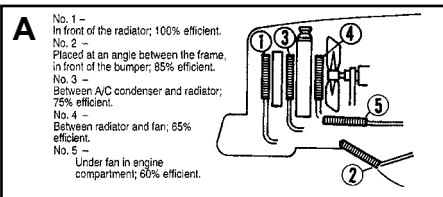
This guide covers the following:

“Sandwich” Style Engine Oil Cooler Systems

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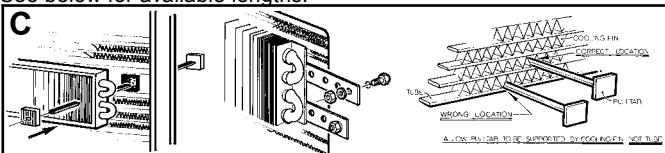
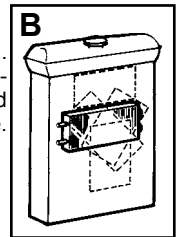
“Sandwich” Style Engine Oil Cooler System

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.



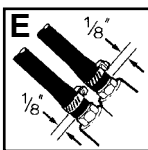
Your engine oil cooler, when properly installed, will keep your oil in its optimum operating temperature range. This results in longer engine life and better performance. Your cooler coil relies upon air moving over and through its fins to extract the heat from the oil. The coil can be mounted in any location, however, the location of the coil directly affects its efficiency. It can be placed in front of or behind the radiator, although the two should not touch each other, 1/4" (6mm) is adequate (see illustration A). Naturally the coil should be protected from flying objects and contact with any other moving parts. The coil can be placed vertically or horizontally (see illustration B).

When mounting the coil to the vehicle, consider the length of the hose supplied. Attach the coil with the nylon tie straps and secure with a nylon button on the other end. Place foam pads (and rubber spacer washers, if applicable) between the two coils (see illustration C). If the coil has mounting brackets, you may use nuts, bolts, screws, and metal straps to attach. If additional hose is required, use 1/2" (13mm) I.D. oil hose suitable for 300°F (149°C) and 250 lb. pressure. See below for available lengths.

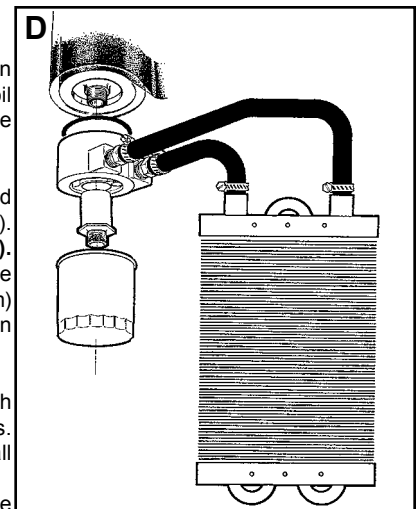


“SANDWICH” METHOD

With the engine cool to the touch, remove the oil filter. Wipe the engine sealing surface and filter nipple clean of any dirt or grease. Install the hose fittings in the engine adapter. If applicable, install fittings in the oil cooler coil. Always use a backup wrench on the coil. Seal the threads with Teflon® tape or appropriate sealer. **MAXIMUM TORQUE** on the fittings is 28 ft. lbs. (38Nm). **DO NOT OVERTIGHTEN!**



Apply a thin film of oil to the adapter O-Ring. Install the adapter in place of the old filter. Hold adapter in place and tighten sleeve nut. Do not tighten more than 14-16 ft. lbs. (19-22Nm). **Note: An O-Ring MUST be used between adapter and the engine (see illustration D).** Install hose from the “sandwich” adapter to the engine oil cooler coil. It makes no difference which hose goes to which position on the oil cooler coil. Position the hose clamps 1/8" (3mm) from the ends of the hose and tighten. Do not over tighten the clamps — the proper tension is when the hose bulges up slightly through the slots in the bands (see illustration E).



CAUTION: Avoid hot exhaust pipes, manifolds, or headers. **DO NOT BEND** the hose sharper than a 5 inch radius. Secure hoses with clamps or tie-straps if necessary. Start engine and immediately check for leaks. Add oil as needed. After installation, operate the vehicle in a normal manner for a day or so. Recheck all fittings and clamps for proper tension. Retighten if necessary.

NOTE: All filter mounts and sandwich adapters utilize a Ford type oil filter. Use the guide below to determine which oil filter to purchase. Some vehicles have extra long oil filter nipples. For these models it may be necessary to cut the nipple at about 5/8" (16mm) from the face of the filter landing. File and remove all chips.

U.S. Patent Numbers: 4,190,105; 4,335,688; 4,617,702; 5,291,969

Accessories available:

- P/N 103 Metal Mounting Strap System
- P/N 105 Nylon Tie Mounting System
- P/N 131 Replacement Hose 1/2" x 5'
- P/N 132 Replacement Hose 1/2" x 11 1/2'
- P/N 15106 Oil Temperature Gauge System
- P/N 81008 Spin-On oil filter 3/4"-16 thread x 5"
- P/N 81043 Spin-On oil filter 3/4"-16 thread x 4 1/4"

Brand Name	Standard Fit	Tight Fit
PERMA-COOL®	81008	81043
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FRAM®	PH8A	PH43
LEE®	LF1	LF16
MOTORCRAFT®	FL1A	FL173A
NAPA®	1515	1068
PUROLATOR®	L30001	L14670
WIX®	51515	51068

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